

REMARKS

Some of the following remarks duplicate what was presented in the RCE on December 18, 2006. They are presented for the examiner's convenience to avoid the need to "flip" between both papers.

Regarding the Claim Amendments:

The amendments to the claims add no new matter. Applicants herewith further revise the claim language to remove wording which had been added due to a misunderstanding on the part of applicants' representatives. Applicants and their representatives apologize for any inconvenience.

Regarding previous Claim Rejections:

- I. Claims 11 – 15 stand rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the enablement requirement.

Claims 11-15 stand rejected for allegedly failing to satisfy the enablement prong of 35 USC 112. The Examiner asserts that the recitation in claim 11 stating "constant flow rate" challenges "at least one of the laws of thermodynamics - conservation of energy, for flow through an empty conduit would have a pressure drop associated with it due to friction loss" and accordingly, fail to teach one of ordinary skill in the art how to maintain a constant flow rate (*See*, 17 May 2006 Office Action, page 2). Applicants respectfully disagree.

Applicants respectfully assert that it is common practice in the beverage industry and well known to one skilled in the art that filtration is performed by at least the following steps:

- a) a filter aid is added to the turbid beverage, usually by continuous dosage;
- b) the turbid beverage with the filter aid is allowed to pass an auxiliary filter. The filter aid and the haze causing particles ("haze") of the

beverage, e.g. yeast cells, settle on the auxiliary filter and form a filter cake.

c) past the filter yields a clear beverage.

In step b), settling of filter aid and haze on already formed filter cake is a continuous process. Thus, during the filtration, the filter cake is continuously growing in thickness. The thicker the filter cake the higher a resistance to the flow is generated.

Further, Applicants respectfully assert that changes in the flow rate, especially when appearing suddenly, are unwanted as this could lead to a breakage of the filter cake and consequently immediate filtration stoppage. Therefore, the pressure in front of the filter is increased continuously so far that the resistance of the filter cake is compensated for as it grows and the flow rate is kept constant.

This procedure is summarized in, for example, pages 334 to 337 of *Filtration - principles and practices* (Chemical industries; v. 27), M. J. Matteson, C. Orr (eds.), 2nd edition, Marcel Dekker, New York, 1987 (attached hereto). Moreover, methods performing the aforementioned filtration method employing a constant rate are everyday practice in the beverage industry and thus, the one skilled in the art knows how to adjust the pressure to keep the flow rate constant.

Accordingly, claims 11-15 are enabled and Applicants therefore request withdrawal of the 112 rejection.

II. Claims 15 – 23 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Van Den Eynde (US 6,117,459).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."¹ As explained in the previous reply, Van Den Eynde et al. merely address physical mixtures of stabilizing agents and filtration aids. Van Den Eynde et al. do not describe a method wherein polymer powders comprising (a) from 20 to 95% by weight of at least one thermoplastic polymer from the group consisting of polyolefins and polyamides, (b) from

¹ *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

80 to 5% by weight of at least one further substance selected from the group consisting of silicates, carbonates, oxides, silica gel, kieselguhr, diatomaceous earth and crosslinked polyvinylactams, and mixtures thereof perform as filter aids and/or stabilizers for filtering and/or stabilizing an aqueous liquid, the polymer powders being obtained by compounding the thermoplastic polymers (a) and the further substances (b) in an extruder. Thus, claim 11 and claim 15, which depends from claim 11, are not anticipated by Van Den Eynde et al.

Likewise, since the Van Den Eynde et al. reference merely addresses physical mixtures of stabilizing agents and filtration aids, the reference does not set forth a process for filtering and/or stabilizing an aqueous liquid, which comprises using as filter aid or stabilizer a polymer powder comprising a) from 20 to 95% by weight of at least one thermoplastic polymer from the group consisting of polyolefins and polyamides, b) 80 to 5% by weight of at least one further substance selected from the group consisting of silicates, carbonates, oxides, silica gel, kieselguhr, diatomaceous earth, crosslinked polyvinylactams and mixtures thereof, the polymer powders being obtained by compounding the thermoplastic polymers (a) and the further substances (b) in an extruder. Thus, claim 16 is not anticipated by Van Den Eynde et al. Since claim 16 is not anticipated by Van Den Eynde et al. claims 17 – 23, which depend from claim 16, are not anticipated by Van Den Eynde et al.

III. Claims 15 – 23 stand rejected under 35 U.S.C. §103(a) as allegedly being obvious over Van Den Eynde (US 6,117,459).

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”²

As discussed above, Van Den Eynde et al. merely address physical mixtures of

² MPEP §2143.

stabilizing agents and filtration aids. Van Den Eynde et al. do not teach or suggest a method wherein polymer powders comprising (a) from 20 to 95% by weight of at least one thermoplastic polymer from the group consisting of polyolefins and polyamides, (b) from 80 to 5% by weight of at least one further substance selected from the group consisting of silicates, carbonates, oxides, silica gel, kieselguhr, diatomaceous earth and crosslinked polyvinylactams, and mixtures thereof perform as filter aids and/or stabilizers for filtering and/or stabilizing an aqueous liquid, the polymer powders being obtained by compounding the thermoplastic polymers (a) and the further substances (b) in an extruder. Since Van Den Eynde et al. do not teach or suggest all of the features of claim 11 a *prima facie* case of obviousness has not been established. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.”³ Claim 15 depends from claim 11, and thus, is not obvious over Van Den Eynde et al.

Likewise, the Van Den Eynde et al. reference does not teach or suggest a process for filtering and/or stabilizing an aqueous liquid, which comprises using a filter aid or stabilizer a polymer powder comprising a) from 20 to 95% by weight of at least one thermoplastic polymer from the group consisting of polyolefins and polyamides, b) 80 to 5% by weight of at least one further substance selected from the group consisting of silicates, carbonates, oxides, silica gel, kieselguhr, diatomaceous earth, crosslinked polyvinylactams and mixtures thereof, the polymer powders being obtained by compounding the thermoplastic polymers (a) and the further substances (b) in an extruder. Since Van Den Eynde et al. do not teach or suggest all of the features of claim 16 a *prima facie* case of obviousness has not been established. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.”⁴ Claims 17 – 23 depend from claim 16, and thus, are not obvious over Van Den Eynde et al.

- IV. Claims 11 – 23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1 and

³ MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

⁴ MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

3 – 16 of copending application No. 10/398,179 in view of Van Den Eynde (US 6,117,459).

The Examiner rejected Applicants' claims under the judicially created doctrine of obviousness-type double patenting as being unpatentable in light of the combination of Van Den Eynde and co-pending Application 10/398,179.

Applicants herewith submit a terminal disclaimer disclaiming the terminal part of a patent granted on this application which would extend beyond the expiration date of co-pending Application 10/398,179, and agreeing that a patent granted on this application shall be enforceable only for and during such period that the legal title of such patent is the same as the legal title to co-pending Application 10/398,179. Withdrawal of the rejection under the judicially created doctrine of obviousness-type double patenting is therefore respectfully solicited.

The present application is in condition for allowance. Favorable action is solicited.

Respectfully submitted,
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